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ORIGINAL ARTICLE.

Some Unusual Symptoms in Nephritic Disease.

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For the purpose of disclosing the fact that the typical symptoms of many diseases are oftentimes unreliable in revealing the true state of affairs, I have concluded to present to this association a clinical history of two cases of nephritic disease recently coming under observation, hoping thereby to elicit the experience of others along similar lines.

It must be admitted by those of sufficient experience that if we were always to depend upon the manifestation of certain symptoms to diagnosticate this or that malady, we would be led astray. Fortunately, the texts in laying down those data upon which we should fix for the typical symptomatology have not neglected to refer incidentally, at least, to those which are atypical. Unfortunately, however, in seeking to analyze the clinical features presented, the human mind is inclined to run along the lines of least resistance, because this is accomplished with the least expenditure of energy. It is so convenient to accept as our guide that which is indicated as typical, and be content with the revelations on that basis, instead of considering every possible cause that may enter into the symptom-complex.

Whilst it is permissible from an artistic point of view to suppress unnecessary detail and accentuate that which conforms to the ideal, from a scientific standpoint this would often lead into inexcusable error; a multiplicity of details, though at times perhaps annoying, cannot be confusing, however, if each is given its proper attention, and after mature reflection eliminated as immaterial and irrelevant, reserving that which oftentimes is the key to the solution of the whole question at issue.

Unfortunately, pathognomic symptoms, even after the most painstaking search, are not always at hand to relieve us of doubt where an obscurity of symptoms leaves us with some misgivings lest we may have erred. Still we have no right to accuse nature of any unfairness in her revelations. I am quite confident that all this would be less mysterious than we are inclined to imagine if we would view a given case in its ensemble, instead of awaiting some special feature to be conveniently obtruded upon us.

It is the report of such cases with their unusual symptoms that makes these meetings of interest, and after adjournment we cannot but feel that something of value has been carried away by those who have entered into the discussion, and for this reason I shall now give a summary of two cases referred to in the beginning.

Case 1.—About two months ago I was summoned in consultation to see a gentleman about forty years of age, of rather stocky build, with no antecedents bearing upon his present malady, nor any previous history worthy of note; indeed, he had enjoyed exceptionally good health and lived a very temperate life, as the word temperate usually goes.

By occupation a banker his habits had been rather sedentary, and with the custom so prevalent in these busy times, enjoying a good appetite, he admitted being inclined to bolting his food; previous to the present time no inconvenience resulted from this pernicious habit, and he was loathe to ad-

mit any deviation from health save that which might arise occasionally from a slight constipation, the result of neglect; under these circumstances he stated that he suffered from symptoms that were not only annoying, but would occasionally arouse a suspicion in his mind that he might have an intestinal obstruction. Yet upon inquiry no history of pronounced constipation with fecal accumulation could be elicited; indeed, he stated that one day's omission would produce these symptoms, and that an ordinary saline purgative would immediately disabuse his mind of this fear.

The gentleman in charge of the case in citing its history, stated that Mr. N., some forty-eight hours previous to the consultation had been seized with violent pains in the left iliac region accompanied by tenesmus and some vomiting. It was only after the administration of a number of cathartics and copious enemeta that he had succeeded in procuring an alvine evacuation; despite this, however, the symptoms of tenesmus continued, and the pain was at times excruciating. Added to this the abdomen became tympanitic, and though there were no symptoms of shock he feared an intestinal obstruction.

Interrogating the doctor still further, I found that the few and small stools that he had succeeded in procuring presented nothing unusual, there being neither blood nor mucus present, though the patient felt confident that if his bowels had moved sufficiently his troubles would be at an end.

The attendant had not as yet fixed upon any special form of obstruction, but after going over the details of the case with him he thought possibly there might be an intussusception. At the time of my visit the vomiting had ceased, and though his pulse was between 80 and 90, full and strong, there was no fever; nor was the abdomen painful or tender except at one point, and this corresponded on the left side with the socalled McBurney point on the right. No irregularity of outline could be perceived anywhere, nor was there a visible peristaltic movement of the intestines. It may be remarked that this latter symptom could hardly be expected as readily discernible, owing to the very considerable adipose layer covering the abdomen. Upon examining the gentleman still further, I found that there was some tenderness in the left loin, and during the tenesmus the pain radiated into the left groin, though it did not descend into the scrotum, nor along the thigh. Forty-eight hours having elapsed with no fever, no general abdominal tenderness, no great depression, nor shock, and nothing revealed either by a rectal or abdominal examination, I was inclined to believe that the attendant was in error, and told him that though there might be a spastic condition of the bowel, that its cause would have to be sought elsewhere. I mentioned to him the fact that it was not unusual to have intense enteric pains from a number of other causes often overlooked, and associated, too, with obstinate constipation, and though this case could not be so qualified, incidentally mentioned plumbism and gout.

This case not having been preceded by any unusual constipation, I called for a specimen of the urine for an examination. It might also be stated that the gingival mucous membrane presented no blue line. In the meantime told the doctor to continue his purgatives and anodynes as required.

The urinalysis revealed a high colored urine of a specific gravity of 1025, marked acid reaction, containing neither albumen nor sugar, but an abundance of uric acid, leucocytes, and many blood corpuscles. The next day's urine contained an abundant deposit of uric acid crystals, macroscopically visible.

Notwithstanding the effective purgation, the tenesmus and pain in the loin and left iliac region continued for a number of days, the patient invariably insisting that his bowels were not yet unloaded, though the stools were copious and watery. Only after four or five days did these symptoms subside.

It must occur to most of us here present that had these symptoms shown themselves upon the right, instead of upon the left, the gentleman might have been exposed to a laparotomy for a supposed appendicitis.

Case 2.—Is that of an eminent jurist some sixty years of age, who claims to have enjoyed excellent health and rather inclined to attribute his occasional indisposition, a summary of which I shall relate, to biliousness and malaria. Upon four or five occasions, then being upon the bench, he was seized with intense pains in the left iliac region and with rectal tenesmus and constipation, requiring morphia for relief, claiming, however, that this was usually insufficient unless supplemented by a free purgation. Upon each occasion he feared that he was suffering from some form of intestinal obstruction.

Recently consulting me he complained of the same symptoms, though not in as marked a degree, and pointed with distinct emphasis to that portion of the lower abdomen and pelvis overlying the sigmoid, as the seat of obstruction. He claimed that the desire to evacuate his bowels was more or less constant and unsatisfactory, resulting in frequent discharges of small fecal masses, with great tenesmus. His attention seemed to be so concentrated upon this single feature of his troubles, that it was only after repeated interrogation and careful examination that he also admitted having some pain in the left loin, especially after riding upon the jolting cable car, though he insisted that this was insignificant. Pain along the groin was admitted, but the scrotum was claimed to have been exempt.

The gentleman was of large and portly build, but a renal examination was easy, there being no tympanitis nor abdominal spasm, and renal palpation revealed some tenderness in the loin, but no kidney enlargement could be elicited. Rectal examination was negative. No accumulation of feces could be made out in the colon or sigmoid.

Urinary examination disclosed a high colored urine of high gravity acid reaction, absence of albumen or sugar, but a relatively large quantity of leucocytes and red blood corpuscles, seemingly equal in amount, oxalate of lime crystals in abundance; but few epithelia significant of the source of trouble.

Following this case I found that each attack was produced by the jolting in the cars, though the patient insisted that biliousness and constipation were at the bottom of his troubles; pain in the scrotum and down the thigh soon were added to the list of symptoms when the attention of the patient was called to them. Then repeated urinary examinations revealed the condition previously described as constant. The blood corpuscles, leucocytes and oxalate of lime crystals always present, and though he is now willing to admit there must be something else than the intestine at fault, so readily was the gentleman impressed with the diagnosis of biliousness that he was not only loathe to accept my suspicions, but his incredulity amounted almost to ridicule. As a significant feature of his family history—though this is among his descendants—it may be stated that the gentleman has a son who when a boy was cut for stone.

These two cases speak so plainly for themselves that a few remarks might suffice to account for the peculiarity of these symptoms. It is a very easy matter to account for the classical symptom of vesical calculus by referring it to an irritant about the vesical neck transmitted along an afferent nerve from the sacral plexus and reflected thence by an efferent channel to the meatus or glands.

For the same reason we would account for the irritation in the renal pelvis to a spinal center, and thence through an efferent strand—the genito crural—along the scrotum and upper part of the thigh.

For some reason not equally obvious why could not the efferent route be along the colon and the intestinal terminus?

Among the obscure symptoms of suppressed gout, intestinal disturbances are not unusual; in these cases we can easily content ourselves by referring the symptoms to some uremic aberration, due to defective metabolism, but in the two cases above mentioned we were manifestly dealing with urinary concrements acting as mechanical irritants, and in the last case the constant presence of red blood corpuscles is among the most significant features of calculosis vesicalis or urinaria.

Corresponding with the gentleman in attendance upon the judge during his several attacks prior to our consultation, I received the information here quoted in these few lines: "Judge B. suffered several times with severe pain in the ileo-cœcal region; tumefaction and tenderness, rise of circulation and temperature, and constipation. I feared disease of the appendix vermiformis. When bowels were freely opened was relieved, but recovered very slowly."

You will observe that the doctor was so engrossed with the idea of appendicitis that his memory has even betrayed him, his patient positively asserting that the distress was upon the left and not upon the right side.

Up to the present writing I have not encountered a similar array of symptoms upon the right side, and must confess if it were possible would prove very confusing. This would prove doubly so if in the presence of an old renal affection an acute appendicitis developed.

Thus these two cases would hardly have awakened any suspicion of their real nature, the prominent symptom pointing to a congestive or obstructive derangement of the descending colon or rectum, a deception that might have lead to a final error by granting to it an overshadowing importance easily avoided by a urinalysis.

Hygienic Care of Tramps.

The Atlantic Medical Weekly.

The Providence city authorities are taking steps toward caring for tramps and vagrants on hygienic principles. At the Central station in a well-lighted, well-ventilated room there are a number of clean, wholesome cots bought by the city for the accommodation of tramps. The idea is not to make it alone pleasant for vagrants, but to elevate them into respectability by respectable treatment. In the basement are bath tubs and disinfecting washes, and a room for the fumigating, cleansing and drying of the tramps' clothes.

The Central police station was completed last Spring, and as yet not a single tramp has been put through the process owing to delay in completing the plans. The cause of this condition of affairs is due to the incompletion of the clothes cleaning department. The room for this operation is bare and empty. The city council committee on city property who have charge of this matter have done practically nothing to finish up the department. Overseer of the Poor Cummings has recommended the method and apparatus so successfully used in other cities for this purpose, but the recommendation has not been acted upon.

Councilman David Burton, chairman of the committee on city property, states that his committee will soon hold a meeting to make final provisions for equipping this necessary feature of the poor department. The committee has under consideration several kinds of apparatus for cleansing and drying the clothes, and will probably take action so that the work may be completed about October 1.

SYPHILITIC patients who are refractory to other forms of mercury, it is claimed can be given phenate of mercury with good results. It is given twice daily in the following dose:

Mercury.....0.0128 gme.
Carbolic acid.....0.0072 gme.

IN penetrating chest wounds the patient should be kept perfectly quiet. If moved there should be no effort by the patient and the least possible motion. Clothing should be cut away and external hemorrhage checked. He should not be allowed to talk or swallow.

A MAN in Topeka advertises that he is an ophthalmic optician and fits glasses to the eyes in a scientific manner, and that he is a graduate! (God save the mark) of an ophthalmic college.

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Topeka, Kansas, Saturday, Sept. 7, 1895.

Hay Fever.

A more definite pathology and a more satisfactory treatment of that disease which has been misnamed hay fever, would be decidedly acceptable to its many victims. The same misconception of its etiology gave rise both to its name and to the great variety of misapplied remedies, except that the treatment has been in the main empirical. The pollen of grasses and flowers as a specific etiological factor in this disease was accepted without due consideration and was based merely upon the coincident exacerbation of an already existing local disease and the occurrence of pollen in the atmosphere. What may probably have been the irritant factor in the aggravation of symptoms was by total misconception of the pathology of the disease misconstrued as its causative element. With those who have studied the disease most carefully, and who have had the most extended opportunities for investigation, pollen bears no more important relation to its etiology than does any other irritant element of the dust-ladened atmosphere.

Text-books, as a rule, adhere to the old theory, but at the meeting of the Association of Laryngologists, in 1893, it was the almost unanimous opinion of those present that pollen could not be accepted as the cause of hay fever. The periodical recurrence which is argued as evidence by those maintaining the theory proves nothing. In many cases the annual recurrence is more regular than could be accounted for by this theory. Those who have long been victims of the disease say that their attack has for years recurred upon exactly the same date. It is hardly reasonable to suppose, with an uncertain climate and such variable seasons, that plant life develops with the absolute precision manifested in these recurring attacks. The dust from plants is very irritating to the nasal membranes of many people who do not have hay fever. A short exposure will produce puffiness of the nose, sneezing and lacrymation, yet though this susceptibility has lasted for years they do not have hay fever and the symptoms are relieved shortly after the exposure ceases. There are also victims of so called hay fever who have attacks at all times of the year. We have seen cases where the most violent symptoms were produced in midwinter by a very short stay in an over heated room, and these were characteristic symptoms of hay fever.

The point we wish to make is that while pollen or dust, or other irritants may excite aggravated symptoms, there must be some existing local disease which gives to them the peculiarities by which we recognize hay fever, otherwise we should expect to find the same symptoms produced in every nose which was sensitive to these same irritants.

The neurotic habit, which has been discussed at great length by a number of authors as a factor in this disease, opens up

the question of cause and effect. Presuming that the neurotic habit is a predominant characteristic of individuals afflicted with hay fever we must then decide whether it be a pre-existent factor in its etiology or is a manifestation of some pathological condition upon which depends all those disturbances embraced under the term hay fever. If the neurotic habit be a pre-existent factor we would expect an irritation of the stomach or the rectum, or the uterus to produce as violent disturbances as we find here, but we are told that this neurotic habit is only susceptible to some irritant of the *nasal mucous membrane*, and, further, that it only responds to a certain kind of irritant. In other words, it is only a *peculiar form* of the neurotic habit which will produce hay fever. It is a vague and indefinite conception and only suggests the hopelessness of the theory it was intended to establish. We are convinced that all of the symptoms of hay fever may be explained from a rational standpoint. If we consider the relation of the ethmoid cells and the cranial cavity we can readily imagine an involvement of cerebral tissue by extension of a disease process from these cells or a disturbance of function by pressure. It has been pretty thoroughly demonstrated that many of the chronic nasal diseases, and especially those with a neurotic element are in reality diseases of the ethmoid cells. A chronic ethmoiditis may become aggravated by an acute attack of rhinitis which may be set up in a number of ways, but as these attacks ordinarily subside in a few days the symptoms do not become violent. There is a sensitive condition of the mucous membranes of the nose because there is a chronic inflammatory process going on and the victim is more susceptible to irritations. During the fall when the disease becomes most frequent the atmosphere is loaded with the dust from numerous plants and the nose from prolonged and continuous exposure becomes highly inflamed, and were there no involvement of the ethmoids we believe there would be no other symptoms than those of a severe attack of acute rhinitis, but, from the great tumefaction the natural outlet from the ethmoid cells becomes occluded there is retention of secretions and pressure and frequently an extravasation into the tissues around the middle turbinate. There is a sense of pressure in the upper part of the nose and between the eyes, pains in the head, frequently in the occipital region, vaso motor disturbances and other symptoms of hay fever beside those of a simple acute rhinitis.

Treatment of Hay Fever.

In another article we have attempted to show that the treatment of hay fever has so far been empirical. More or less success in the prevention of the attacks has attended the use of various treatments, but so far no plan has been suggested for permanent relief. Cauterizing the nose previous to attacks has in some cases prevented them. The lack of uniformity in the results of this treatment is, we believe, due to the indiscriminate use of the cautery, and a misunderstanding of the seat of trouble.

If we accept the theory of the ethmoidal origin of the disease, then the application of the cautery to such points as will best free the outlet from the ethmoid cells will most generally result in benefit.

Sajous recommends, with a good deal of confidence, the use of glacial acetic acid in preference to the galvano cautery. His argument is that "The vibratile movement of the cilia, as is well known, is stimulated by alkaline solutions and arrested by acid ones, while mucus or its denser element, mucosine, formed by the process of desquamation, is coagulated by acetic acid, but not by heat. The marked affinity of glacial acetic acid for epithelial cells is therefore an established fact. So that it possesses every quality calculated to amend for the time being, the local physiological functions. By causing an organic alteration by coagulation of the entire epithelial layer it paralyzes or destroys the terminal filaments furnishing the parts with sensation, and by disorganizing the cilia, annuls their power of retaining in their meshes the irri-

tating elements which induce the paroxysm."

For palliative treatment Sajous recommends the application of a 10 per cent. solution of cocaine every other day and the use by the patient ten or twelve times a day of a spray of a 10 per cent. solution of menthol in almond oil.

The use of cocaine in these cases is a very common practice and yet a very reprehensible one. Beside the danger of the cocaine habit, the symptoms are only temporarily relieved, and after a few repetitions of the treatment the nose is in a much worse condition than before.

Atropia sprayed into the nostril and given internally will often control many of the symptoms, but the intense dryness of the throat and flushing which it produces makes it very objectionable.

Hot water in large amounts passed through the nose by means of a spray or douche seems to give as much relief as any of the means suggested. The immediate effect is usually violent sneezing and an abundant discharge of mucus, sometimes of purulent character, but the intra-orbital pressure is usually relieved.

For internal treatment strychnine, morphine and atropia, and iodide of potassium or syr. hydriodic acid seem to rank the highest, and of these the syr. hydriodic acid is at the present time meeting with the greatest favor. We have not found any very marked or permanent benefit, though some cases have appeared to be very much milder from its use. For the best effects it must be given in quite large doses, in some cases not less than three ounces a day will suffice.

Another important point in its administration is purity. It should be a fresh product and should be kept away from the light and in a cool place. We have been unable to find any extensive literature on the properties of this preparation, but so far as we can learn it has no therapeutic properties other than those of potass. iodid. It does not disturb the stomach, however, and in this respect is much preferred to the other iodine compounds.

The treatment which has given us the greatest success in the permanent relief of hay fever has been directed to the ethmoid. By securing free drainage and the continuous use of hot water until all catarrhal symptoms had disappeared, we have found not only relief from one attack, but so far as we can learn permanent benefit. It is a question if any operative procedure should be begun during the aggravated condition. We believe if the patient can be rendered fairly comfortable until the acute symptoms have subsided it is best to wait. If the condition demands immediate relief we would not hesitate in removing the middle turbinate in whole or in part, thus uncapping the cells and giving free escape to their contents.

Pepsin.

In the present age of investigation we look with suspicion upon all attempts at radical changes in our therapeutics. Such innovations as have startled the profession during the past few years have, as a rule, had a rapid rise and fall. While the masses of the profession have followed blindly after the fickle-minded, glory-seeking champion of some new specific, the few careful, systematic investigators have by an exhibit of results usually dispelled the illusion. Such has not been the case in every instance, however, and today we have in our armamentarium remedies whose therapeutic use is based upon a delusive conception of physiological and chemical action. One such in common use today has in marketable value almost ranked as the peer of quinine. As an aid to digestion or as a therapeutic remedy in digestive disturbances, pepsin should be relegated to oblivion. Upon no logical deductions from the physiological or chemical processes of the normal stomach can the administration of pepsin as a therapeutic agent be based. It has never been claimed to be anything other than a ferment, and there is no evidence that in any condition or disease of the stomach there is not a sufficient amount of this ferment when

its ingestion would either aid the normal or cause an artificial digestion.

Bourget in the chemical analysis of contents of the stomach of 354 patients, extending over a period of six years, found only two cases in which pepsin was absent from the gastric juice, and these were both cases of atrophy of the stomach, and in these the gastric juices failed to digest albumen after the addition of pepsin and HCl. The normal amount of pepsin which the gastric juice should contain has never been demonstrated, but it has been shown that its action in no way related to the quantity.

Bourget has also demonstrated that the addition of pepsin to human gastric juice diminishes its power of peptonizing albumen. The action of the normal gastric juice in the normal stomach is evidently greatly at variance with the action of artificial digestive fluids in the chemical laboratory, and any therapeutic plan based upon the latter must necessarily be delusive.

DR. JOHN W. ROSS, a retired navy surgeon, suggests a very unique method of circumcision. He retracts the foreskin and inserts the glans penis up to the corona into the open end of an ordinary test tube; he then slips the prepuce well down over it and encircles with a cord tied quite tightly. The superfluous foreskin is then removed by a circular incision around the tube about an eighth of an inch from the encircling cord. The membrane and skin are then stitched, and the edges dusted with iodoform. The cord and tube are then removed and the penis dressed as usual. When necessary from phimosis a longitudinal dorsal incision is made before the tube is applied.

DR. WAUGH found that twenty minim doses of fluid extract of ipecac produced quiet sleep in a subject of alcoholism after forty grains of chloral had failed. He continued this treatment with the same good results.

Gonorrhea: Its Treatment by Intravesical Injections of Potassium Permanganate.

Journal of Cutaneous and Genito-Urinary diseases.

Since my return from Europe, on April 19, I have satisfactorily employed, with but slight modifications, the treatment of gonorrhea introduced by Prof. Janet, of Paris. Most of these cases were in my department at the West Side German Dispensary, and thus far seem to bear out the results obtained in Europe.

Simple and effective as the treatment is, it is equally surprising that as yet it appears to be but little known in our country.

I sketch it here, as well as I am able to do in words, with the hope that others may employ it and favor me with their results, to be used in a more extended study of the subject, shortly to be published

The apparatus employed consists essentially of a glass irrigator capable of holding two thousand grammes; to this is attached a rubber tube three hundred centimetres (about one hundred and twenty inches) long, whose free end is slipped over a glass nozzle about seven centimetres long and six centimetres in circumference, running to a blunt point which can easily be pressed into the meatus to occlude it entirely. E. R. W. Frank, of Berlin, who introduced this treatment into Germany, made a nozzle with an entirely flat point for very sensitive cases with exceedingly small meati.

The irrigator is filled with a warm solution of permanganate of potassium, whose strength will be mentioned later on. The irrigator is then drawn upward by a cord attached to it and passing over a pulley fixed at two metres and a half above the table or chair employed. When the irrigator has reached a height which allows a gentle stream to sscape from the nozzle, while the patient, after urinating, sits or lies down, the prepuce, glans, corona, and meatus are carefully cleansed with the solution in the order in which they are mentioned. Then the penis is firmly grasped and some of the solution allowed to flow into the meatus and

permitted to escape at once. This is repeated, meanwhile gradually raising the irrigator still farther, until successive washings have rendered the entire urethra as clean as possible.

Then the nozzle is held into the meatus, while the patient breathes deeply or makes efforts at urination, until two hundred to five hundred grammes of the solution have flown into the bladder. In most cases the constrictor will be quite readily overcome by the pressure; in others some patience is required. When the bladder is filled, the patient is allowed to exude the fluid, which flows forth in a vigorous stream.

The solution first used is of a strength of 1 part potassium permanganate to 6,000 of warm water; as tolerance is established, this proportion is increased to 1 to 4,000, later to 1 to 2,000, and finally to 1 to 1,000.

These vesical injections are made twice, thrice or four times on the first day; twice on the second, third, fourth, and, if required, on the fifth day, when usually all gonococci have disappeared; then once a day until all discharge has ceased, which in Janet's most severe cases occurred on the tenth day. My success has not been so favorable; I have had several cases in which the flow persisted until the twelfth day.

Before each injection a slide is made for microscopic examination. In the first and second days but little change appears. Thenceforward the gonococci grow sparser in number, and generally on the fourth day at latest they have a swollen appearance; the lumen between each pair of gonococci seems wider., and nowhere can any tendency to further segmentation be observed. They probably are then undergoing a species of involution, or may be returning to that state in which some authors claim them as normal residents of the urethra. On the following day the pus, which has become thin and water-colored, is found free of gonococci.

Then the injections need be given but once a day until the flow ceases entirely. This frequently is on the sixth day of treatment.

It is my habit to order patients to return one week after the flow has ceased. I then make an irritant injection of silver nitrate. A strength of two per centum generally suffices to produce a copious flow within six to twelve hours. If this flow is found to contain gonococci, I repeat the procedures above described until the discharge ceases. Then I allow the patient to rest from treatment for another week. The discharge then produced by silver nitrate contains no gonococci and disappears within twenty-four or forty-eight hours, as do other simple urethrites, without any treatment whatever.

If, however, the discharge evoked by the first silver-nitrate injection shows no gonococci, which occurs in the vast majority of cases, the patient receives another such injection a week later, and if then the discharge is free from gonococci, the patient is discharged, cured.

I hope to demonstrate the technique of this treatment before the summer vacation. I will then show that it is a mistake to assume that the bladder cannot be filled through the arethra without a catheter. I will then also show that no danger whatever attends forcing gonococci into the bladder with the solution mentioned, and that no complications, beyond an occasional œdema of the entire penis, are incurred by this treatment. I reserve until then also a discussion of the *rationale* of this treatment, for which Prof. Janet cannot receive too much credit.

Castration for Prostatic Hypertrophy.

The Times and Register.

Kummell (*Berl. Klinik*, August, 1895), in a lecture on the operative treatment of enlarged prostate, reports eight cases of this affection in which he performed double castration. The operation was followed by considerable relief in these cases, but one patient, aged 77, died from exhaustion after an interval of four weeks. In a review of his own cases, and those published by other surgeons, he states that in a large majority of instances of senile enlargement of the

prostate White's operation is certainly followed by a more or less rapid shrinking of the prostatic tissue. This result of double castration in most cases enables the patient to dispense with the use of the catheter, and to discharge urine spontaneously. The bladder troubles also are much relieved, and the general condition is improved. In the selection of suitable cases attention should be paid to the condition of the muscular structure of the bladder. If the detrusor muscle be paralyzed to such an extent that the bladder cannot be completely emptied even by the use of a catheter, it would be useless to expect a restoration of normal function as a result of removal of the obstruction to the flow of urine. In two of the cases here recorded, however, good results in this respect were obtained in spite of considerable weakness of the detrusor. In many cases the diminished size of the prostate after double castration permits of the more ready introduction of a catheter, and thus wards off the dangers of retention. In the author's opinion, the treatment of hypertrophy by double castration compares favorably with other operative measures, in being simpler in performance and less dangerous. It can be performed without subjecting the patient to the risk of general anesthesia, and necessitates but a very short stay in bed, which with regard to old and enfeebled subjects is a very important point. The operation, it is stated, should be recommended only to those whose sufferings have attained a high degree, and can no longer be relieved by mere symptomatic treatment. The author met with no objection to the operation from any of his patients, all of whom were well satisfied with its results. The recorded instances of success are so numerous and striking that the author has been led to the conclusion that the surgeon is certainly justified in suitable cases of enlarged prostate in advising and performing this operation. Although a more extended series of observations is needed before a clear and absolute judgment can be formed on this new method, there can be no doubt, the author holds, that this procedure is a valuable addition to the operative means of dealing with advanced and grave forms of prostatic hypertrophy. The observations with regard to the influence of unilateral castration on the growth of the prostate are very contradictory, and further information is needed before any definite conclusion can be reached on this question.

The Dietetic Treatment of Phthisis.

Daily Lancet.

In the course of an editorial comment on a paper read before the Association of the Bellevue Hospital Alumni, by H. P. Loomis, M.D., the New Albany *Medical Herald* says:

"We have long preached the gospel of fat and have insisted that the scales are an important instrument of precision for detecting the rate of progress forward or backward, not only in the treatment of this disease, but in the general oversight of our patient. A loss of weight is always a suspicious sign and should arouse our attention at once."

The gospel of fat is undeniably a good one, but, like many other gospels, it is easier to preach than to practice it. Face the problem, as it presents itself in the everyday course of practice. Here is a patient with all the symptoms of incipient phthisis; a marked and continual loss of weight has been noted and this must be checked. Realizing that starch is the natural source of fat, we recommend oatmeal, bread, potatoes, crackers and similar foods be more extensively used. We may even be deluded into prescribing cod liver oil. A week ensues, and the patient again comes in, looking worse than before, and bearing a tale of woe to the effect that the cod liver oil cannot be taken; that between it and the starchy diet which we prescribed digestive disorders have been set up and that a further loss of weight has been recorded. The problem now begins to assume that phase which undertakers are so successful in solving. We know that what the patient needs is fat; we know that starchy foods and oils

are fattening, but if they cannot be digested, what are we to do? It is at just this point that artificially digested foods come to the rescue, and while disappointment may have followed their use in the past, owing to offensive taste or lack of permanency, the medical profession now has in Paskola a form of predigested starch which is acceptable to the most delicate stomach and which, aside from its nutritive qualities, is such an active aid to the digestion of albuminous or meaty foods that it is well nigh a specific in the ordinary forms of gastric indigestion. A rapid increase in weight almost invariably follows its use.

Gonorrheal Immunity.

Jamin and Guiard, in Medical Record.

1. Gonorrhea is a self-limited disease, recovery following after a varying length of time, without any treatment other than ptisanes, baths and hygiene.

2. Abortive treatment does not succeed rapidly and fully until the period of acute inflammation has passed.

3. A patient, either male or female, apparently, though not really cured, is capable of transmitting a subacute gonorrhea—that is, the colorless drop of secretion is capable of inoculation if it contains a few gonococci. The author consequently believes that the gonococcus during evolution modifies its culture medio, *i. e.*, the urethral mucous membrane. It continues to grow there but becomes more and more attenuated and latent, until it finally disappears. Unless this is true, a gonorrhea, untreated would last indefinitely, the cocci multiplying and reinoculating themselves in the infected urethra cantinuously. It is at the time when the virulence begins to diminish that abortive treatment succeeds. If, on the other hand, this attenuated gonococcus comes in contact with a healthy mucous membrane in another individual it is immediately rejuvenated, prospers, and produces acute gonorrheal symptoms, since it finds there a suitable culture medium, which is not exhausted with that from whence it came and where it was about to die. The objectors to this theory say: "If you admit that the role of the culture medium is thus superior to that of the microbe, how can you explain acute attacks in men having gleet? How can their exhausted mucous membrane become reinoculated?" Guiard believes this reinfection is impossible in cases where the gleety discharge contains cocci. He, however, reserves his opinion regarding this form of relative immunity until further facts are procured.

Histological Theory of Sleep.

The Alienist and Neurologist.

Dr. Henri de Varigny, of the Museum of Natural History, Paris, states (*Popular Science News*) that Ramon y Cajal has discovered that in the nervous system the cells which make up the gray matter of convolutions and of the medulla are not connected with each other by means of fibres running from one cell to the adjoining ones, as was most generally believed. Each cell gives out a number of fibres or roots, which diverge and run centrifugally, but these fibres or roots do not coalesce with those of the adjoining cells, and make up continuous filaments. They meet the latter and are in contact with them, but remain distinct. Adjoining cells are in relations of continuity, through their fibres. These relations do not pre-exist, but are somewhat determined by mental or nervous impulses, so that, when impulses of the same sort are frequent, the cells through which the impulses pass are enlarged, as are also the corresponding fibres, so that the passage is rendered easier. This explains in some degree the difficulty with which the first efforts to perform some new exercise—mental or physical—are attended, as well as the greater ease which follows from frequent repetition. The exact nature of the mode of transmission of the impulses from one cell to another is unknown, but the hypothesis which suggests itself upon reading Ramon y Cajal's paper is that each cell—each "neurone," as cells are called—may be

considered as sort of amœba, with pseudopods of the common amœba of ditch water. When quiescent, the amœba contracts its pseudopods and curls itself up like a ball. When active, it pushes its pseudopods out, and puts itself in contact with the pseudopods of the nearest cells or neurones. Weidersheim has observed this circumstance upon the cells of the brain of *Leptodera Hyalina*. These cells do not always offer the same form, but are constantly changing; and in the olfactory apparatus, the olfactory cells, which are of nervous structure have pseudopods which possess locomotive faculty. As to sleep: since the nervous cells are not necessarily in constant continuity, being only in contiguity, and in possibly changing continuity, it may be supposed that while agents which are known to stimulate nervous activity may act by stimulation of the pseudopods, which will be pushed further out and with more vigor, the condition of sleep is one in which the pseudopods are retracted, so that each cell is in a quiescent condition. This would be the histological theory of sleep. Some confirmation is obtained from the fact that in general paralysis a part of the pseudopods are permanently retracted, if not in a state of atrophy. These recent investigations, and the speculations based thereupon, open new views, and the latter may be profitable. Many mental phenomena would be explainable upon this hypothesis. Fullness, for instance, would result from general inertia or laziness of the pseudopods; memory, from the ease with which the latter would push out and meet the proper adjoining pseudopods, and so on.

The Pupil in Anæsthesia.

Northwestern Lancet.

This is the day of the literature of the anæsthetic. Since the announcement of the first successful application of anæsthesia to surgery and the subsidence of the interest that that announcement awakened, it is doubtful if the subject has ever been so prominent before the medical profession as it is now. Occasionally articles have of course appeared ever since November 18, 1846, when was published in the *Boston Medical and Surgical Journal* the first account of a surgical operation under an anæsthetic. But within the last year or two articles upon ether, chloroform and other anæsthetics and upon anæsthesia in general have rained down upon medical journals and group after group of statistics has been given. It is also to be remarked that reports of deaths from anæsthetics are getting to be very common, whether because of an increased death rate, greater care in reporting the accidents or merely because of the natural increase in the number of operations performed it does not appear. The *British Medical Journal*, for example, might well keep the head line, "Death Under Chloroform" stereotyped, as it rarely issues a number without a paragraph upon this subject. No doubt the relative death rate in this country is just as large as it is in England, and the infrequency with which accidents from anæsthetics are noted in medical journals here is due to a greater lack of candor.

Among the practical suggestions to be found in all this mass of literature, one of the best is contained in a paper in the London *Lancet* by Mr. Arthur H. Ward, where, under the title "The Danger Signal of the Chloroformist," he discusses the behavior of the pupil during the administration of the anæsthetic. The topic is not a new one, and the anæthetizer is supposed always to watch the pupil as well as the pulse and respiration, but it is safe to say that many of those who look at the pupil while administering an anæsthetic have no distinct idea of what they are looking for or what the changes in the pupil mean.

According to Mr. Ward the third nerve center which governs the pupil is one of the first to be affected by anæsthesia. This is not a vital center and its narcosis is not dangerous. As a patient goes under the anæsthetic the first change in the pupil is that it becomes dilated and active; dilated because with the brain being half narcotized, any impulse whether sensory, mental

or sympathetic will inhibit the nerve center, while the center not being as yet narcotized the pupil remains alive. As the narcosis proceeds the cerebrum no longer responds to outside influences, and the third nerve center, unimpeded in its action, causes contraction of the pupil. If the anæsthetic is pushed beyond this point the third nerve center becomes narcotized and the pupil gradually dilates and becomes fixed. This is the danger signal, for if the narcosis goes beyond this point the respiratory center is likely to be involved in the narcosis and death to follow.

A concentrated pupil is a safe condition for the subject of anæsthesia. If dilation occurs it must be determined at once whether the patient is coming out of the anæsthetic or going too deeply under. If the former, there will be other signs, vomiting, reflex movements or response of the pupil to light. If the dilation be due to extreme narcosis the pupil will be fixed and the breathing sterterous.

Although this rule for the pupil was written about chloroform it applies in the main to ether narcosis also. The chief difference is that the contraction of the pupil is but moderate under full ether anæsthesia and no one seems to have pushed the drug far enough to know if dangerous dilation follows an overdose. It is safe to conclude, however, that what is true for chloform will be true for ether also, although few will probably care to push ether to find out. The beginning of dilation with a movable pupil is an excellent guide to the demand for more of the anæsthetic, as it is likely to be followed quickly by vomiting.

It is needless to say that the pupil guide in anæsthesa should not alone be relied on, but the pulse and respiration carefully watched as well.

DR. BAYARD HOLMES recommends the use of dental wax in diagnosing cases of obstruction of esophagus. He fixes the wax upon a bougie and warms it. It is then pressed against the obstruction and an impression taken which will usually give some definite idea as to the nature of the object.

"Malarial Biology."

Medical Progress.

The *Boston Medical and Surgial Journal* in an editorial (July 4, 1895), entitled "*Re*cent Experiments on the Parasites of Malaria," says: In four subjects there were injected respectively one-half, one and two cubic centimeters of blood from a patient suffering from the quartan type of malarial fever. The first two subjects suffered no inconvenience, the last two had chills and fever, one on the eleventh and one on the seventeenth day. After this varying incubation the quartan type was assumed by each and small, round bodies were found in the blood, which were larger on the following days, developing with the characteristic pigment spots inside the red blood corpuscles. In this one of seventeen days' incubation there was increase of hematozoa at the succeeding paroxysm. Quinine ended the attacks after two more typical attacks.

A robust boy was inoculated by injecting two cubic centimeters of blood from a patient suffering from an irregular form of intermittent. Iucubation lasted fourteen days, when there supervened a typical irregular fever, with chills and sweats, and continuing several days, till stopped by quinine. The sickle-shaped hematozoa were found in the blood.

In another case blood containing Laveran's semilunar bodies was injected into a man suffering from quartan fever whose blood contained the typical amebæ of quartan fever; after seventeen days the small endoglobular began to be seen; the fever increased and gradually there supervened the whole cycle of the irregular types of malaria, lasting for six days. After twenty-five days from the time of inoculation the semilunal forms appeared and remained for three days and disappeared with the return of the original quartan forms; the patient did not recover for three months.

According to Prof. Eugene Mattei, from whose "Study of Experimental (Malarial) Infection" in the *Arch. fuer Hygiene*, No. 3, 1895, quotation is extensively made, it is

possible for several types of parasites to exist together in the blood of a patient who has been exposed to various forms of the disease, and while only one form may be found in the blood of the peripheral circulation other kinds may exist latent in the deeper tissues and organs waiting a chance of development.

Other experiments showed quotidian fever produced from the blood of patients suffering from a tertian type, and vice versa, indicating the conclusion that tertian and quotidian malarial fever are caused by the same parasite in different stages of development.

Trosseau taught that the type of the fever depends more on the locality in which the individual lives than on the condition of the person himself. The human system does not change the morphology or the biology of the parasite. It is found that in certain localities the same type of malarial fever always occurs. According to Prof. Mattei, each form of malarial parasite has its cycle of growth and multiplication. The different malarial organisms are not more like each other than are the various bacteria. These organisms respond somewhat differently to drugs and other tests. Between the different kinds of malarial parasites and the types of fever an unchanging relation exists as cause and effect, and one form of fever never changes into another. In those forms of malarial fever where a pure type is wanting, it must be admitted that there is a mixed infection, that is, by several kinds of the hemameba.

DR. A. C. BERNAYS, of St. Louis, has been sued for $15,000 damages for the publication of the portrait of one of his patients in connection with the report of the case. It seems the doctor was granted the privilege of taking a photograph of the child, but the mother claims it was for his personal use and there was no understanding that it should be published. If this case holds there will probably be a dearth of illustrations hereafter in medical journals.

Lacerated Cervix.

Dudley.

1. That suturing the lacerated cervic properly, immediately after the labor, will result in primary union of the same and prevent many of the evils that follow in the wake of a union by second intention.

2. That the fear of septicæmia attending the manipulation of the cervix, and the introduction of poisons, which will induce septicæmia at the same time, is an unfounded one, and would be dissipated by giving such work a proper test.

3. That it is a method of procedure more justifiable than an immediate repair of the perineum, which the profession of today universally advocates.

4. That the securing of primary restoration of the laceration hastens involution, prevents subinvolution, and the various forms of displacement which are induced by it in such an overweighted organ.

5. That catgut is the proper suture, and perfectly safe and reliable when carefully prepared.

ONE of the best remedies for the sleep sweats of phthisis is from one to two tablespoonsful of whisky or brandy in a glass of milk before retiring.

WANTED.—A set of Reference Hand Book. Any one having a set and wishing to dispose of it, address this office.

DR. S. E. SHELDON is spending a few weeks in Colorado for the benefit of his hay fever.

WE have a Yale Chair in first class condition, for sale.